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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/629,940

07/29/2003

Charles Hartman

200310736-1

9039

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11/14/2006

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EXAMINER

DALEY, CHRISTOPHER ANTHONY

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,940

Applicant(s)

HARTMAN ET AL.

Examiner

Christopher A. Daley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Claims 1 – 9 are pending.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 – 4, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ajanovic et al (US5859988) hereinafter Ajanovic.

4. As to claim 1, Ajanovic discloses a configurable I/O bus architecture, comprising:  
a system bus interface device (Figure 3 illustrates a system bus interface device, 301);  
first and second I/O bus interface devices (port B interface 302, and port interface 303);  
first and second intermediate buses (first and second intermediate busses that are inputs of data buffers 304, and 306 respectively);  
a switching device (figure 3, arbitration and control unit 308); and  
a steering signal; wherein: the first intermediate bus couples the system bus interface device to the first I/O bus interface device (Arbitration and control unit 308 produces a

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signal that determined the coupling of interface unit 301 to 302, COL. 5, line 65 – COL. 6, line 3) ;

the second intermediate bus couples the system bus interface device to the switching device (Said bus is coupled to switch 308, COL. 7, lines 38 - 46); and

the switching device is operable to couple the second intermediate bus either to the first or to the second I/O bus interface device responsive to the steering signal (Switching device 308 arbitrates between port B and Port C, dependent on the control signal, COL. 7, lines 38 - 47).

5. As to claim 2, Ajanovic discloses the configurable I/O bus architecture: further comprising at least a first signal indicating whether an I/O device is coupled to the second I/O bus interface device (Signal 206 is said signal, COL. 7, lines 40 - 45); and wherein the steering signal is derived from the first signal such that the steering signal assumes a first state when the I/O device is so coupled and a second state when the I/O device is not so coupled (The steering signal arbitrates the enablement of either interface 302 or 303, COL. 7, lines 10 - 25).

6. As to claim 3, Ajanovic discloses the configurable I/O bus architecture, wherein: the switching device couples the second intermediate bus to the second I/O bus interface device when the steering signal assumes the first state, and couples the second intermediate bus to the first I/O bus interface device when the steering signal

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assumes the second state (The steering signal arbitrates the enablement of either interface 302 or 303, COL. 7, lines 10 - 25).

As to claim 4, Ajanovic discloses the configurable I/O bus architecture:  
further comprising a second signal indicating whether the I/O device is coupled to the second I/O bus interface device (Figure 3 illustrates control signal from arbiter 308 to second interface 303 ); and  
wherein the steering signal is derived from both the first and second signals using a logic gate (It is well known in the art that the inputs of controlled elements are inputs into the arbitration logic).

7. As to claim 9, Ajanovic discloses the configurable I/O bus architecture:  
wherein the first and second intermediate buses are rope buses (Figure 2 illustrates an embodiment where a rope configuration is present, Col. 3, lines 28 - 63).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ajanovic in view of Alexander et al (US6510529), hereinafter Alexander.

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10. As to claim 5,7 – 8, Ajanovic does not disclose a hand-operated switch for an I/O bus;

However, Alexender teaches of a hand-operated switch 104 controlled by a panel button that will enable/disable the coupling of PCI bridge 108 to system controller 102. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Alexender into Ajanovic as Alexender's teaching provides a human safety over-ride, when a fault condition arises COL. 5, lines 43 – 67. One of ordinary skill in the art would have been motivated to use the bridge of Ajanovic in the system of Alexender to provide a manual safety override, when a fault occurs, COL. 5, lines 43 – 67.

11. As to claim 6, Ajanovic discloses the configurable I/O bus architecture, wherein: the switching device couples the second intermediate bus to the second I/O bus interface device when the steering signal assumes the first state, and couples the second intermediate bus to the first I/O bus interface device when the steering signal assumes the second state ((The steering signal arbitrates the enablement of either interface 302 or 303, COL. 7, lines 10 - 25).

### ***Response to Arguments***

12. Applicant's arguments filed September 19, 2006 have been fully considered but they are not persuasive. With respect to the applicant's argument that the prior art Ajanovic does not teach the limitation "the second intermediate bus couples the system

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bus interface device to the switching device. First, a definition of the term ***couple*** need to be established. The American Heritage Dictionary, copyright 2002, defines couple as something that joins or connects two things together. Association not direct interconnect is an appropriate interpretation of the term. In the spirit of this valid definition, Figure 3 of prior art Ajanovic would validate that second intermediate bus that is directly connected to port A/c Data buffers in 306, that is directly connected to buffer manager 307, that is directly connected to switch device (Port B/C arbitration and control device 308).

With regards to the applicant's argument that prior art Ajanovic does not teach the switching device is operable to couple the second intermediate bus either to the first or to the second I/O bus interface device. The examiner points to the teaching of Ajanovic, who illustrates in Figure 3 switching device 308 data flow to and from both I/O interfaces 302 or 303, Col. 5, lines 60 – Col. 6, line 9.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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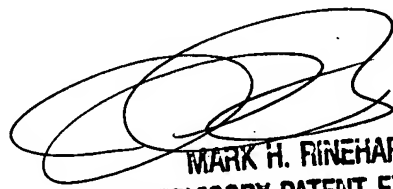
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Daley whose telephone number is 571 272 3625. The examiner can normally be reached on 9 am. - 4p m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571 272 3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/07/2006  
CAD



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